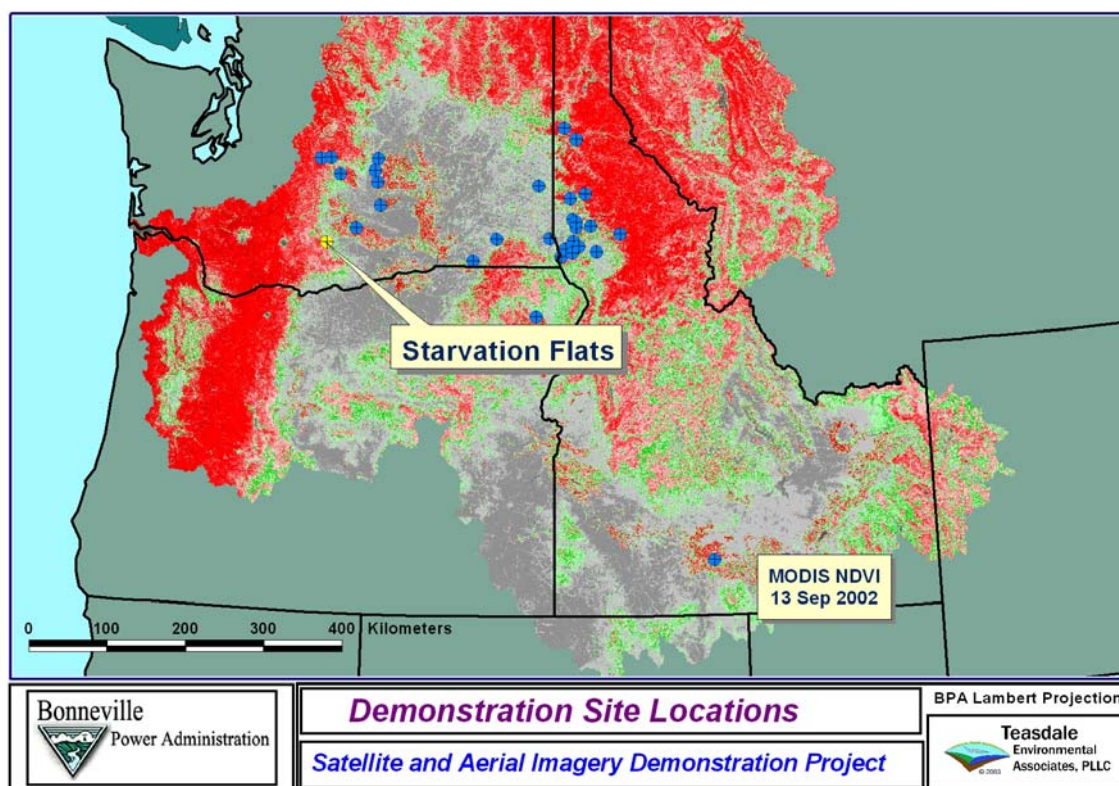


Starvation Flats Demonstration Site	
Location	Yakama Reservation
Water body	Yakima River
Ecological Provenance	Columbia Plateau
Subbasin Name	Yakima
BPA Hydrologic Unit Code ID	3942
Hydrologic Unit Code, 6 th Level	170300031402
Watershed Name	Lower Yakima, WA



Unique Characteristics

Starvation Flats is an upland meadow in the headwaters of Dry Creek within the Yakama Reservation. The seasonal near surface water table has lowered reducing the extent of culturally significant vegetation. The Yakama Nation is implementing stream and water table enhancement measures to restore the native vegetation.

Satellite imagery for this site includes Landsat 5, Landsat 7 and ASTER. Digital color aerial imagery was acquired on May 8, 2002. Ancillary data

includes topographic DRG's, DOQ's, watershed boundaries and national land cover data.

Objective

The primary objective was to acquire early spring very high-resolution digital aerial imagery to visually assess the status of the hundreds of check dam structures installed in the stream and gully system throughout the Starvation Flats area. A secondary objective was to review historic NAPP and Landsat imagery to observe changes in Starvation Flats vegetation.

Results

Water retention (or lack of) behind the check dams was observed in the early spring aerial oblique imagery. The vertical aerial imagery showed the location and structure of the check dams. Measurements of channel width and check dam length from georeferenced images agreed with field measurements, demonstrating that fairly reliable measurements could be made from georeferenced aerial imagery for conservation and stream assessment work.

No significant changes to the overall vegetation patterns of the Starvation Flats area were observed in the historic NAPP and Landsat imagery. Distinguishing reflectance of early season wetland plants probably would not be observed in Landsat because of resolution and persistent cloud cover. Wetland vegetation could likely be discriminated in very high-resolution digital aerial CIR.